DEVELOPING INTERDISCIPLINARY METHODS AND TECHNOLOGICAL TOOLS FOR COMPOSITION AND PERFORMANCE IN CONTEMPORARY WESTERN ART MUSIC.

TANGENCIES

PEDRO GONZÁLEZ
esmuc
ESCOLA SUPERIOR DE MÚSICA DE CATALUNYA

PEDRO GONZÁLEZ

esmuc

ESCOLA SUPERIOR DE MÚSICA DE CATALUNYA

2 RESEARCH QUESTIONS

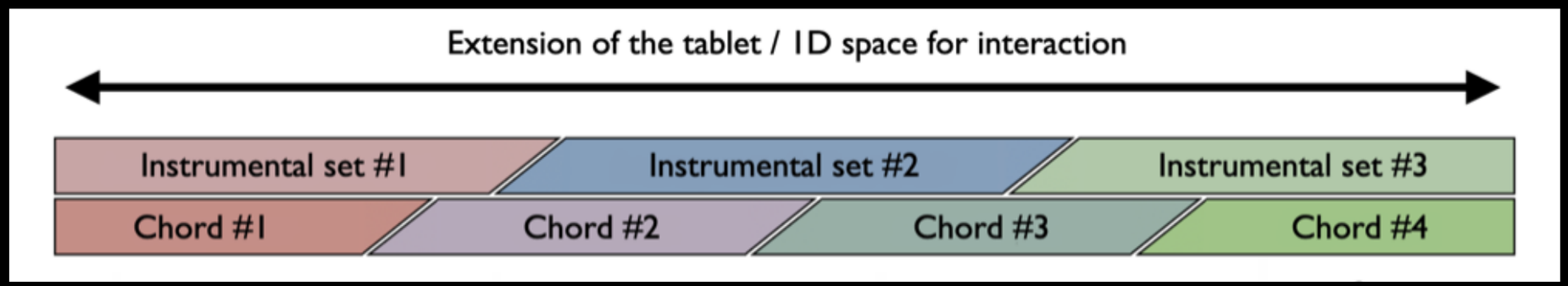
- Method development: what would happen if I change my approach towards Contemporary Western Art Music composition and performance applying different methods derived from studying and training other scenic disciplines? Can I formalise the results of my research into an experimental methodology which I could use for future interdisciplinary work?

- Tech. tools development: how to recontextualize different experimental designs and technological devices I learned about and developed while working in the field of social neuroscience (Motion Tracking, interactive sonification, Virtual Reality, Machine Learning) into an artistic context? Based on that, how to produce software and hardware tools which I could use as a basic technological setup to conduct interdisciplinary experiences with dancers, actors and musicians?

3 METHODOLOGY (EXPLORATORY QUALITATIVE RESEARCH)

- In-depth interviews: eliciting data on individual personal histories, experiences, and perspectives concerning the topic.
- Literature review: on interactive sonification/socSMCs
- Participant observation: collecting data on naturally applied methods and creative approaches in each compared discipline context. For example, as I did while attending Contact Improvisation workshops or while working for the socSMCs project.
- Focus groups: collecting data on the collective experience of a group working interdisciplinary. Broad overview of issues concerning the different disciplines represented. Interdisciplinary Atelier: a series of practical workshops for hfMT students regarding interdisciplinary creation.
- Autoetnography: describing and systematically analysing my personal creative process during the project.
- Technical development: Programming software solutions for interactive movement sonification in the context of socSMCs which could be applicable to my artistic production.

4 RESEARCH EXPERIENCE AT UKE INSTITUTE FOR NEUROPHYSIOLOGY IN HAMBURG ON BODY KINETICS


Extension of the tablet / 1D space for interaction
Instrumental set #1
Instrumental set #2
Instrumental set #3
Chord #1
Chord #2
Chord #3
Chord #4

4 SOCSMCS INTERACTIVE SONIFICATION

1D Shadowing experiment

QA:
NEO-FFI, EQ, AQ

map of emotions:
assess current state

written instruct.,

warm-up

Real Mirror Game?

Sound intro videos

Audiovisual practice, alone

Visual

Audiovisual

Audio

randomised order

Visual

Audiovisual

Audio

randomised order

Interviews,

5min each, divided into:

- Lead
- Follow
- Joint Improv

40sec each!

80sec each!

- Follow
- Lead
- Joint Improv

Frame 1 | Frame 2

Wie war das letzte Spiel?

Ich bin oft abgeschweift		Voll bei der Sache, Fokus auf Interaktion
Langweilig, frustrierend		Hat Spaß gemacht!
Hat sich sehr lang angefühlt		Die Zeit kam mir sehr kurz vor

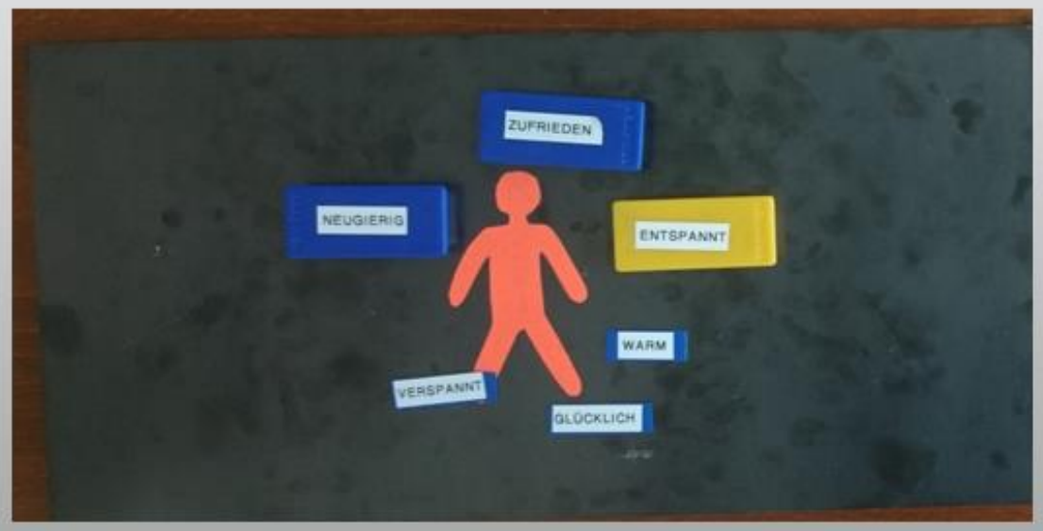
Wie war die Interaktion mit Deinem Partner?

Eintönig, kenne ich schon		Kreativ, kam neues dazu, überraschend
Komplex, chaotisch		Flüssig, fließend

Da war ein besonderer Moment! :)

RATE

B

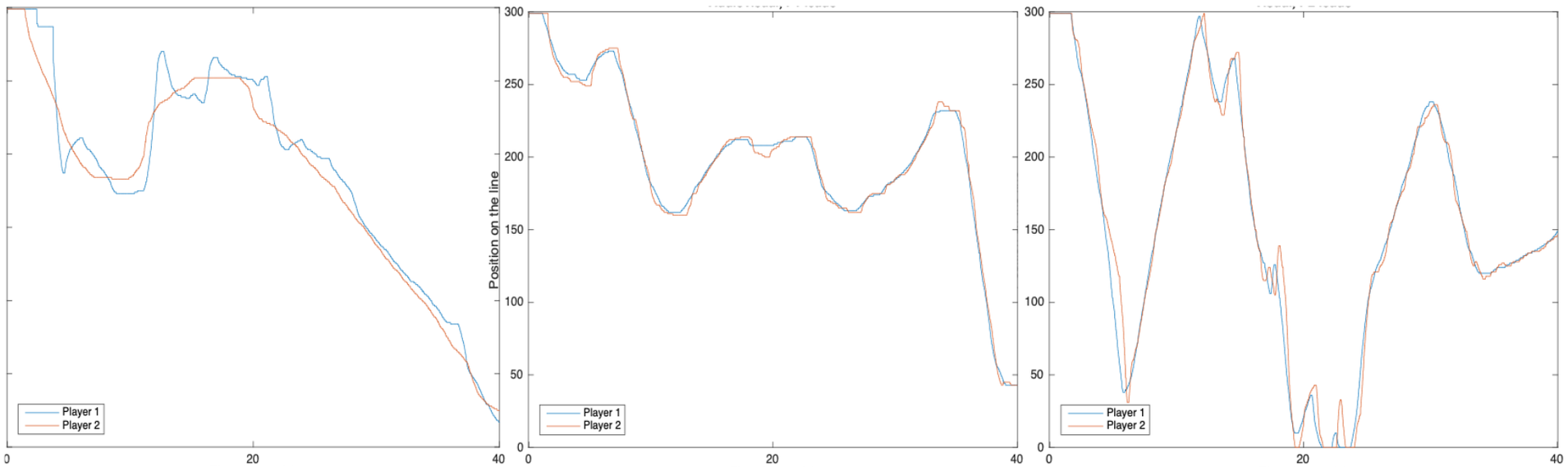


Audio

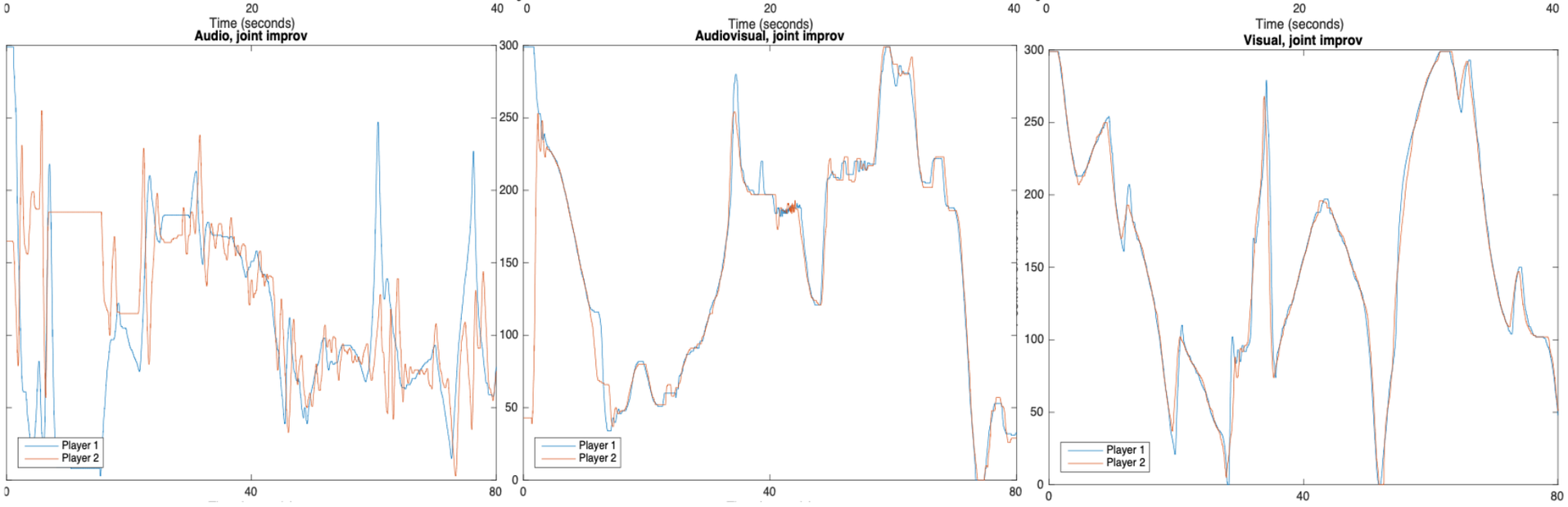
AV

Visual

Leader



Joint Improv



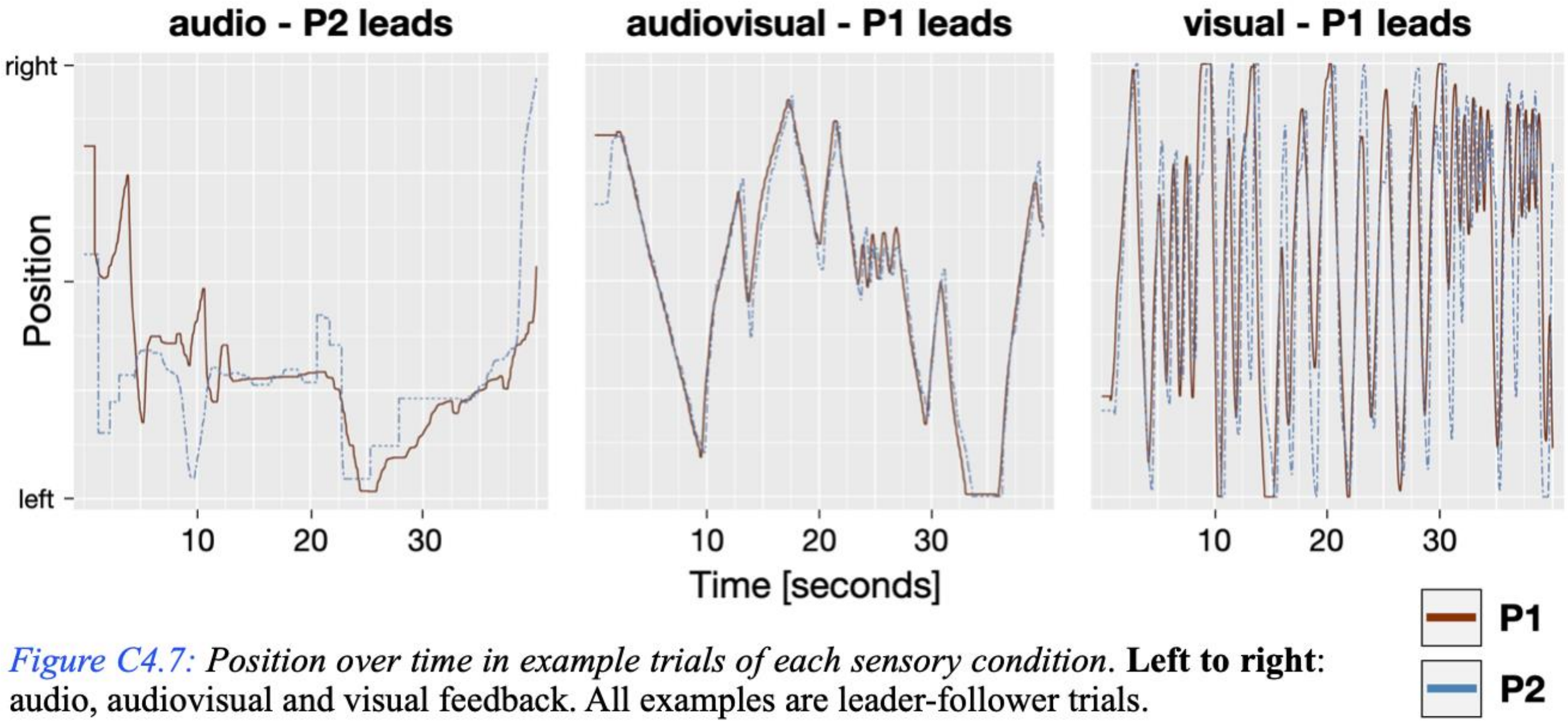


Figure C4.7: Position over time in example trials of each sensory condition. **Left to right**: audio, audiovisual and visual feedback. All examples are leader-follower trials.

Thematic content analysis

Figure C4.6: Largest two clusters from the thematic content analysis of individual, post-play interviews. Nearly all participants (>= 17 of 20) mention all main categories in both clusters. The dashed perimeter of the radial histogram indicates the full number of (coded) participants. *Figure C4.6A*: sub-categories of the 'emotions' cluster, with main categories: **neg** - negative emotion, **pos** - positive emotion, **spec** - the experience of a special moment of interaction. *Figure C4.6B*: sub-categories of the 'orienting - figuring it out' cluster, with main categories: **cool** - the motivation to do interesting things, **flow** - comments around (not) following and follow-ability, **idea** - remarks on making and recognising proposals, **mode** - describing different modes of playing, and **soc** - comments about social and personal dynamics.

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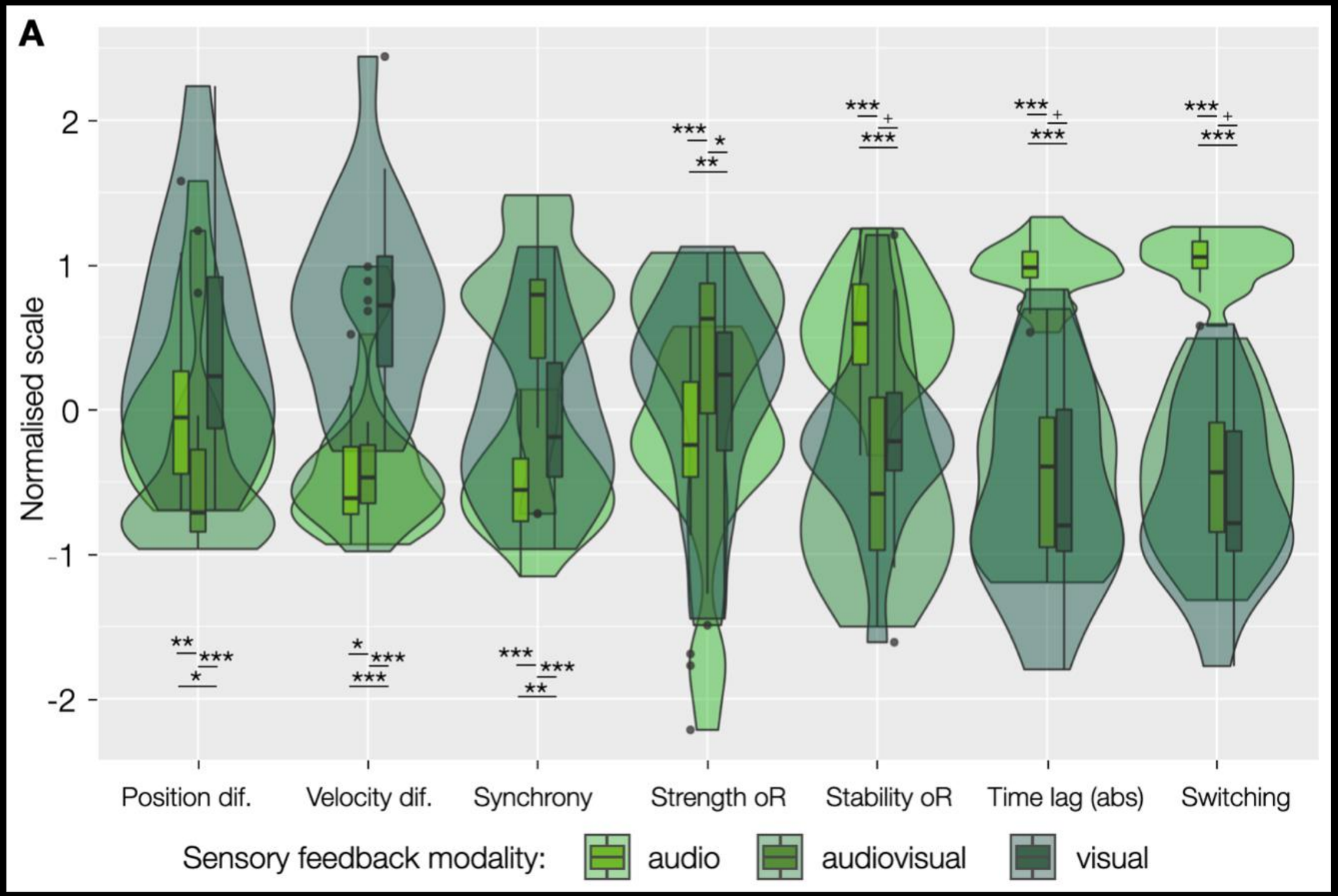
Violin Plots - Multimodal interaction



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INTERDISCIPLINARY ATELIER

- • Series of practical workshops for students and some external participants in which to explore different experimental strategies concerning interdisciplinary creation.

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examples

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The piece is written for saxophone quartet + tape. It consists on 4 material types: acoustic sound, electronic sound, gestures and players spatial distribution on stage.

Gestures: The arrows indicate the directions in which the saxophones should be moved. The movement is accompanied with the whole body. The direction of the movement is relative to the position of the player on each scene. Spatial distribution: There are 11 scenes. The transitions between positions are specified in the score as “transition” when short or “bridge” when long. The instruments are represented by capital letters: soprano (S), alto (A), tenor (T), baritone (B). The movements should look simple but sharp and synchronized (like a piston engine).

GESTURES

UP

DOWN

LEFT

RIGHT

UPPER-LEFT

UPPER-RIGHT

DOWN-LEFT

DOWN-RIGHT

CENTER-(Neutral position) When combined with another gestural indication, it means that the movement should end with the neutral position.

KEEP-When combined with another gesture, it means that the movement should be finished with the most extreme position from the gesture it is combined with. The position should remain like that until the next gestural indication.

CIRCLE-RIGHT

CIRCLE-LEFT

PLAYING TECH.

Slap

Crunchy/ Saliva sound

Teeth/ High pitch

Blowing inside without reed vibration

Flutter tongue

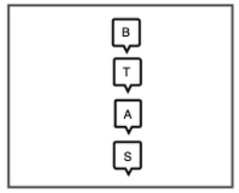
Air combined with aleatoric key movement

Multiphonic

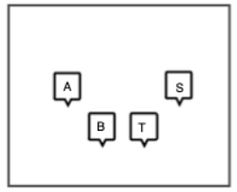
Regular sound

POSITIONS ON STAGE

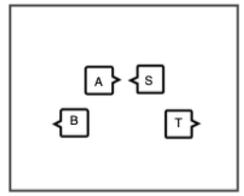
SCENE 1



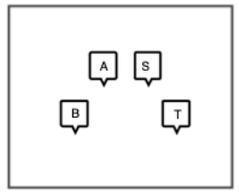
SCENE 2



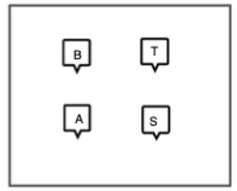
SCENE 3



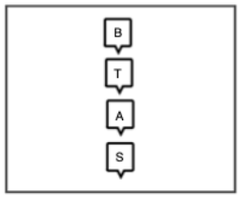
SCENE 4



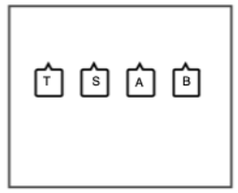
SCENE 5



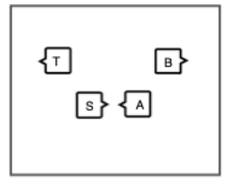
SCENE 6



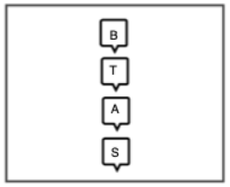
SCENE 7



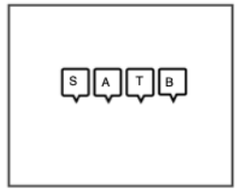
SCENE 8



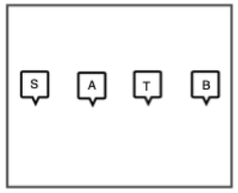
SCENE 9



SCENE 10



SCENE 11



Pedro González

♩ = 80

Scene 1

Scene 2

transition

Movement-S

Soprano

Movement-A

Alto

Movement-T

Tenor

Movement-B

Barítono

Hybrids

PERFORMANCE NOTES

GENERAL:

SEQUENCE 1 is a piece for 2 performers, movement, light, video and electronics inspired on a buggy computer simulation of a fight. The 2 performers learn a set of body movements and stage positions / transitions to be precisely executed by heart, following a click-track synchronized with video, lights and electronic sounds.

STAGE POSITIONS:

The stage contains 5 fixed position points and 6 transition trajectories. On the right you can find a scheme illustrating the different positions and trajectories as well as the respective numbers corresponding to the direction the performers should face at each moment during the performance.

MOVEMENTS:

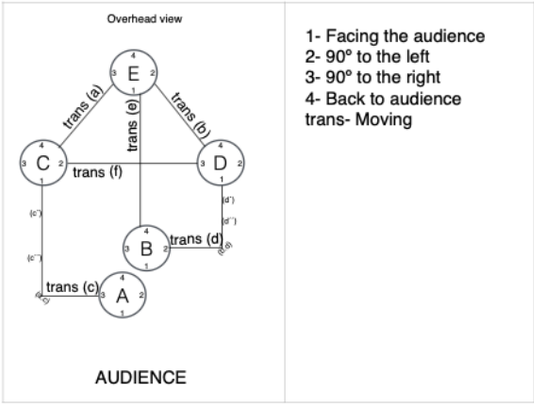
There is a set of 19 movements to be learned by the performers. Follow the explanations on the table. In case of doubt you can contact me here: *pedrogonzalezcomposer@gmail.com*

The movements should be performed in an aggressive machine like fashion. Every beginning and end of each action/movement should be strongly accentuated. (You could get inspired by the movement aesthetics performed by the “shadow characters” on Jordan Peele’s movie “ US”

COSTUMES:

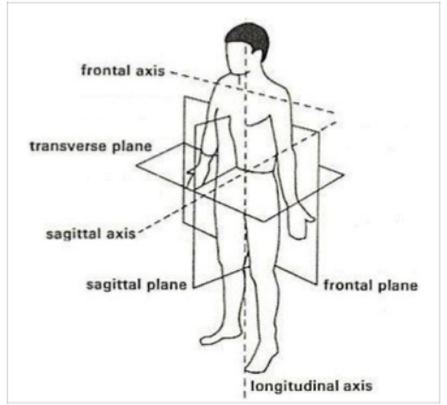
The 2 performers should wear adequate clothes (maybe white full body suits) to be reflected by the LED lights, white masks and a total of 4 big shinny knives to be hold one on each hand.

Stage positions



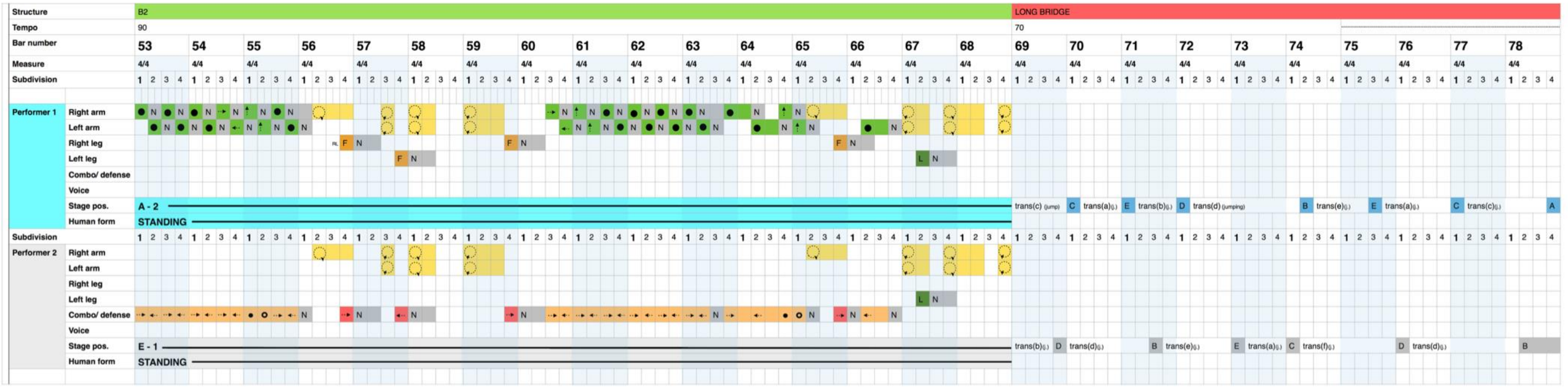
1- Facing the audience
2- 90º to the left
3- 90º to the right
4- Back to audience
trans- Moving

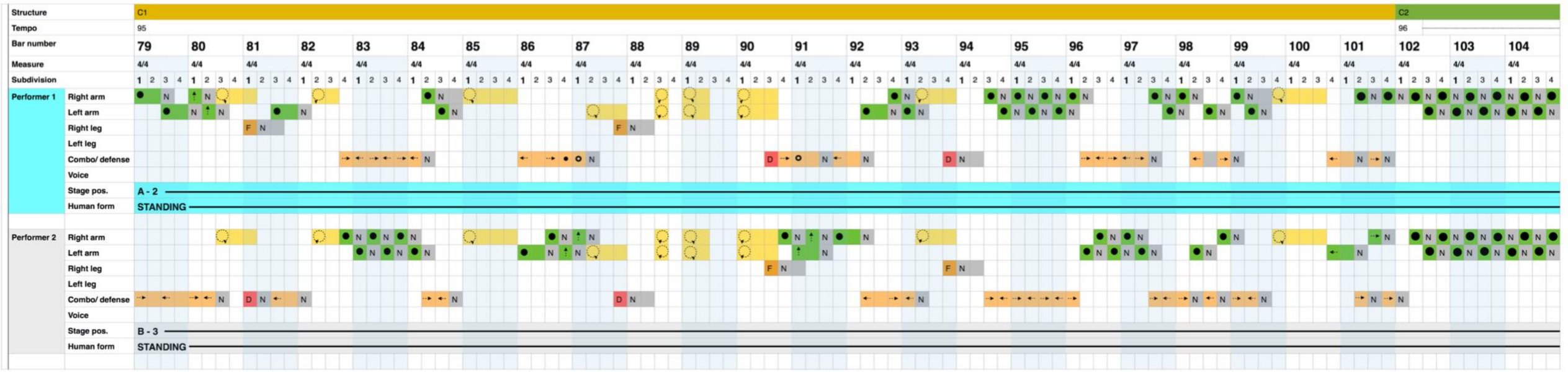
Body Axis



MOVEMENT EXPLANATIONS

CATEGORY	NAME	SYMBOL	EXPLANATION
Body Form	STANDING	STANDING	Standing on your feet (body form by default)
	WALKING	WALKING	Walking between stage positions
	JUMPING	JUMPING	Continuous jumping following 8th note subdivision (Could be used for a fixed stage position, as well as for moving between positions)
Right arm/ Left arm	PUNCH UP	↑	Extending your arm UP in a punch like action
	PUNCH DOWN	↓	Extending your arm DOWN in a punch like action
	PUNCH LEFT	←	Extending your arm to the LEFT in a punch like action
	PUNCH RIGHT	→	Extending your arm to the RIGHT in a punch like action
	PUNCH FRONT	●	Extending your arm to the FRONT in a punch like action
	CIRCLE RIGHT	◌	Performing a circular movement to the right with your extended arm.The plane containing the circle should correspond to your frontal plane. Starting and ending point depends on the previous movement.
	CIRCLE LEFT	◌	Performing a circular movement to the left with your extended arm.The plane containing the circle should correspond to your frontal plane. Starting and ending point depends on the previous movement.
Right leg/ Left leg	FOOT	F	Kicking with your foot frontally along your saggital plane (low kick)
	LATERAL	L	Moving one of your legs laterally up to 80º from the neutral position along your frontal plane (militar)
Combo/Defense	GLITCH 1	G1	Repeating your own designed short movement (1) spasmodically
	GLITCH 2	G2	Repeating your own designed short movement (2) spasmodically
	GLITCH 3	G3	Repeating your own designed short movement (3) spasmodically
	SLOWMO	SL	Dramatically receiving punches all around your body in slow motion. Ironically overacted. Moving towards beginning position
	UPPERBODY FRONT	●	Turn your upper body 40º to the front along your sagittal plane
	UPPERBODY BACK	○	Turn your upper body back along your sagittal plane
	UPPERBODY RIGHT	→	Turn your upper body 40º to the right along your frontal plane
	UPPERBODY LEFT	←	Turn your upper body 40º to the right along your frontal plane
	DOWNBODY RIGHT	→	Bending your knees to the right like if you were receiving a lateral low kick
	DOWNBODY LEFT	←	Bending your knees to the left like if you were receiving a lateral low kick
General	BACK TO NEUTRAL	N	Coming back from the previous movement/ position to the neutral position
	NEUTRAL	*N*	Standing on your feet, with your knees and shoulder slightly bended (resting position) Each body part can be in NEUTRAL position while other body parts perform different actions.
	CONTINUE	———	Extending one of the previous actions / processes in time
	PAUSE		Keep static the final state, waiting for new information to come


Structure
B2
LONG BRIDGE
Tempo
90
70
Bar number
53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78
Measure
4/4
Subdivision
Performer 1
Right arm
Left arm
Right leg
Left leg
Combo/ defense
Voice
Stage pos.
A - 2
Human form
STANDING
trans(c) (jump)
trans(a)(↓)
trans(b)(↓)
trans(d) (jumping)
trans(e)(↓)
trans(a)(↓)
trans(c)(↓)
Performer 2
E - 1
trans(b)(↓)
trans(d)(↓)
trans(e)(↓)
trans(a)(↓)
trans(f)(↓)
trans(d)(↓)


Structure
C1
C2
Tempo
95
96
Bar number
79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104
Measure
4/4
Subdivision
Performer 1
Right arm
Left arm
Right leg
Left leg
Combo/ defense
Voice
Stage pos.
A - 2
Human form
STANDING
Performer 2
B - 3

Strings

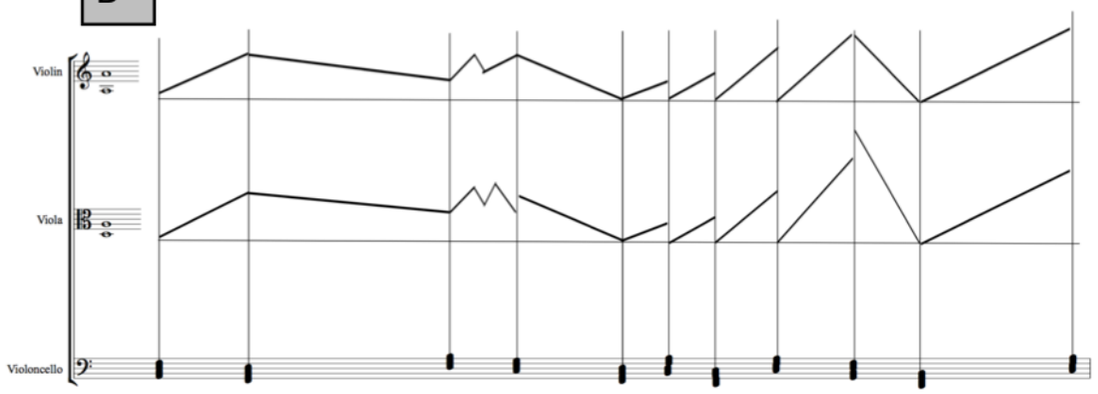
6

C

TEXTURE

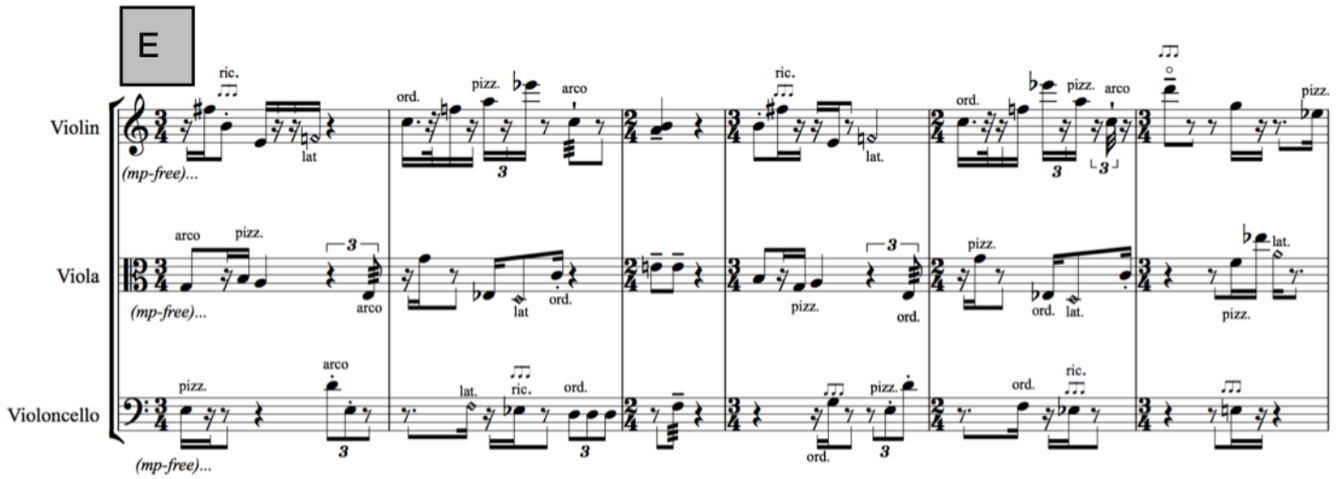
7

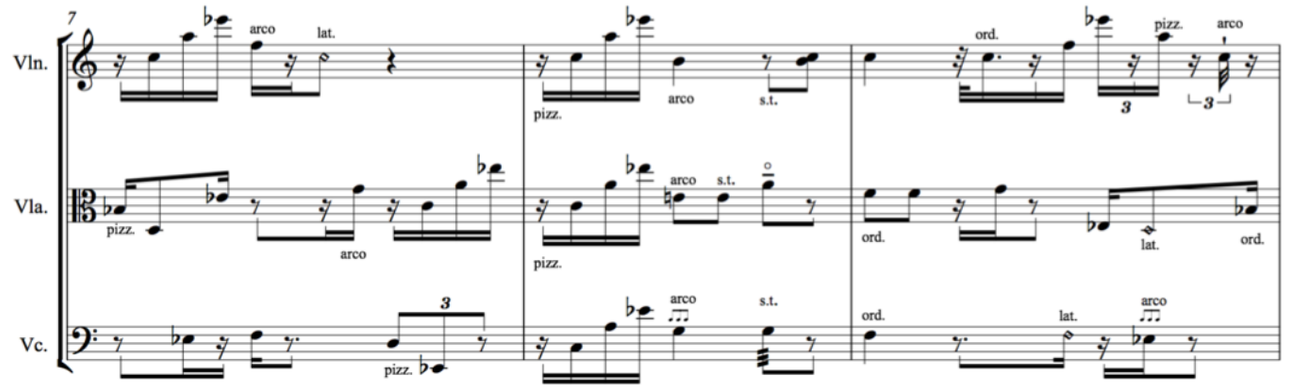
D

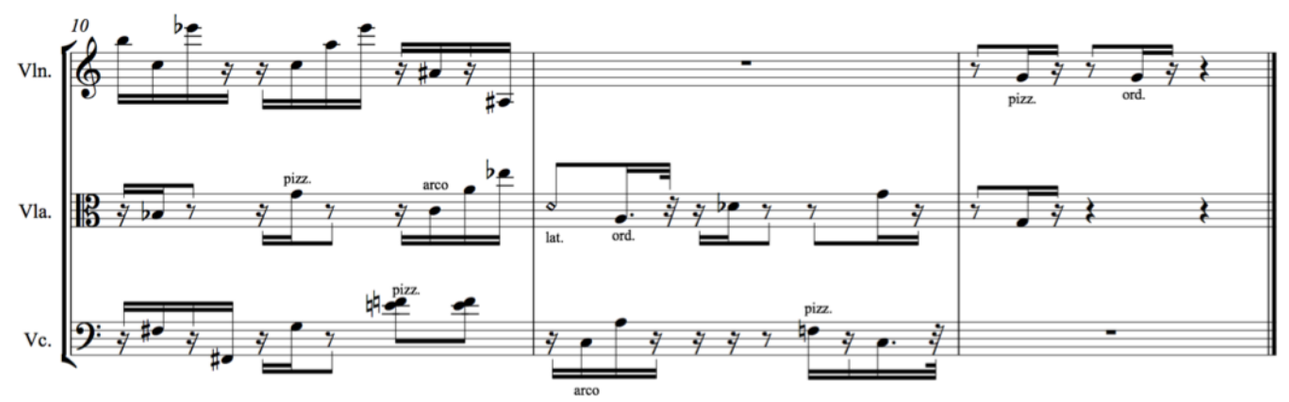


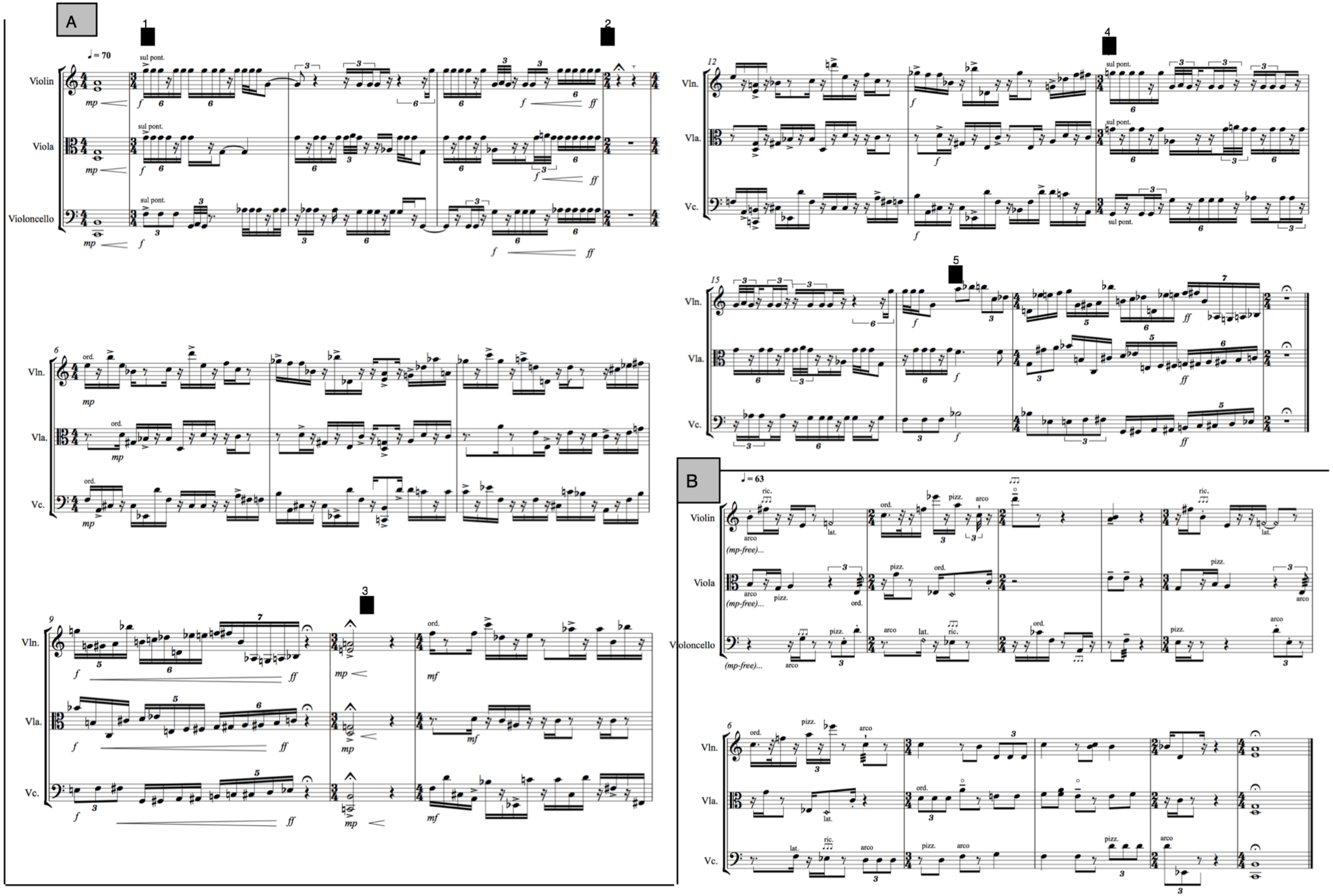
8

E



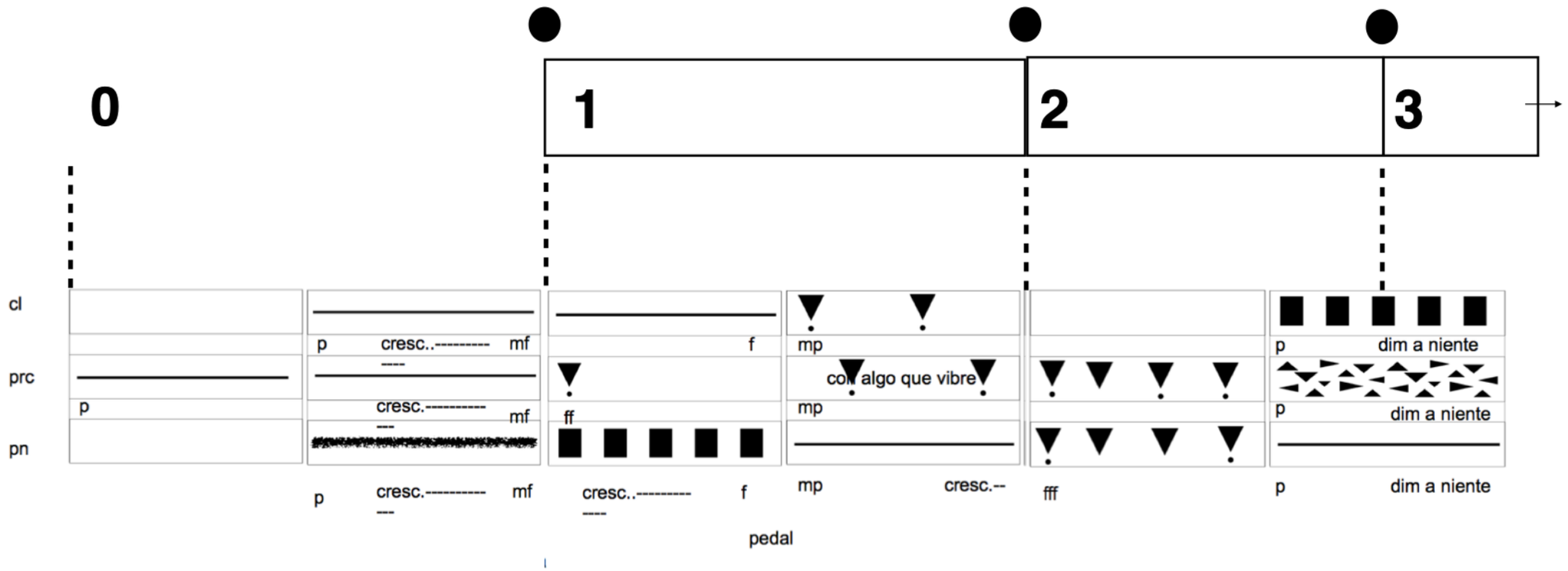


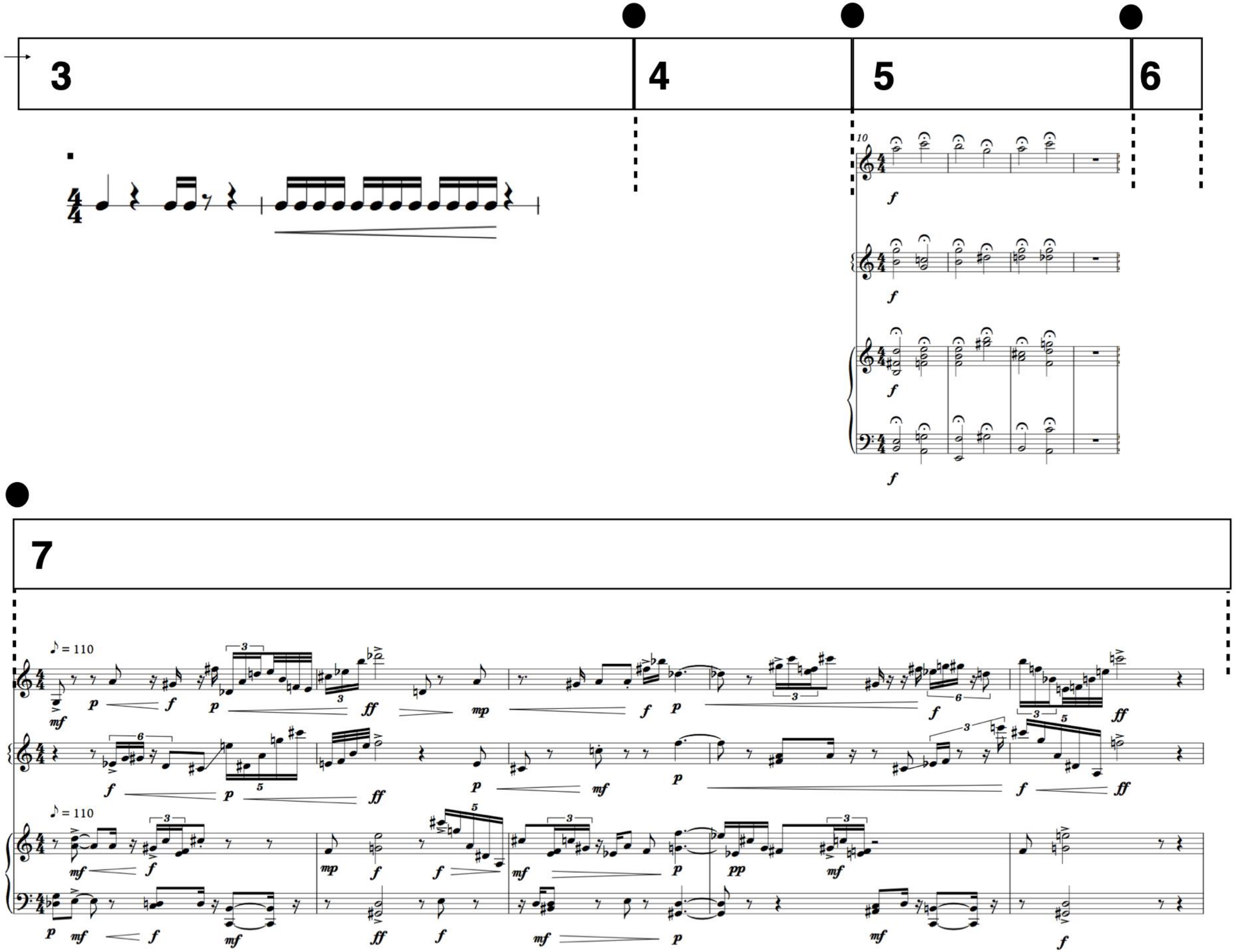



A
♩ = 70
Violin
Viola
Violoncello
sul pont.
Vln.
Vla.
Vc.
ord.
B
♩ = 63
(mp-free)...
arco
pizz.
lat.
ric.

Courante

TIDE


0
1
2
3
cl
prc
pn
p
cresc..---------
mf
f
mp
p
dim a niente
cresc.----------
mf
ff
con algo que vibre
mp
p
dim a niente
p
cresc.----------
mf
cresc..----------
f
mp
cresc.--
fff
p
dim a niente
pedal


3
4
5
6
7
♪ = 110
♪ = 110

PLAYGROUNDS III:GRAMMAR OF CARE

PEDRO GONZÁLEZ
esmuc
ESCOLA SUPERIOR DE MÚSICA DE CATALUNYA

GAME 1

It is a competitive head basketball game mixed with a gymnastic ribbon shadowing game. The transition should be made in the meantime bars from 80 to 96 are played in loop. It should last around 4 minutes. The GAME 1 itself (bar 97) lasts around 12 minutes.

Transition

1- MC divides the audience into 3 groups of 10 people "throwers", depending on the number they wear on their clothes /1 to 10/ + /11 to 20/ + /21 to 30/ and situates them in their 3 respective playing positions.

2- From each audience group MC selects one person randomly to be the "ribbon master". Then MC gathers the ribbon masters, gives them ribbons, and place them on their playing positions.

/ In the meantime 3 musicians (violin, clarinet, and flute) stop playing and put on the head baskets. Then, they take their instruments again and wait for indications while the other musicians of the ensemble keep playing./

3- MC introduces the 3 musicians (violin, clarinet, and flute) as the "musical baskets" and ask them to occupy their positions looking to the ribbon masters

4- MC asks the musicians to stop playing because he needs to concentrate on what to do now.

5- MC gives an example of how the ribbon works. Then he explains the rules, and what each of the groups has to do to win the game.

6- MC counts down the beggining of the game: 3,2,1, and… Go!

GAME 1 Rules:

The "throwers" of each group should try to score as many points as possible by throwing balls inside the basket situated on the head of the musicians in front of them.

The "ribbon masters" of each group, situated in front of the "musical baskets" of another group should try to indicate movements to the musician so he moves his head in a way that it is harder for the throwers of the opposite group to score points.

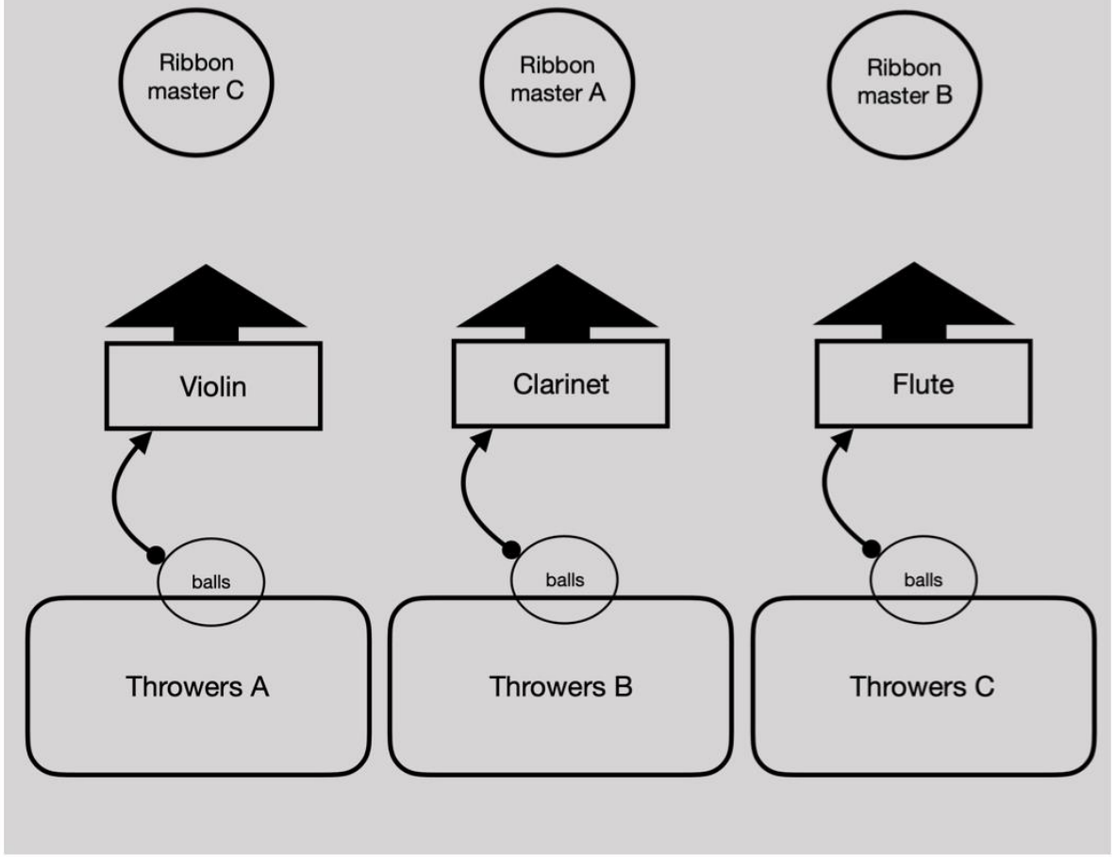
The musicians will just follow the movements of the ribbon and transform the directions and mood into musical gestures.

The first group who is able to score 20 points or the group who has the maximum number of points when the 12 minutes passed wins the game.

Musical material:

The group of the 3 musicians with baskets in their heads (violin, clarinet, and flute) have to improvise following the movements of the audience members with the ribbons in a musical manner, and mirroring the position of the ribbon with their body, tilting to the right, to the left, up, and down. In general the movement should not be too big, so even when following the ribbon, it is still possible for the other players to position the balls into their head baskets.

The other 3 musicians (cello, organ, keyboard) accompany the game. Each of them focusses on one of the head baskets. They have to play short, soft, percussive sounds every time one audience member throws a ball into the basket, and a forte random chord when the ball enters the basket.

The game finishes when MC says STOP!! At that moment all the musicians come back to their respective playing positions in the ensemble space.

Space distribution: